



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2013-0299; Directorate Identifier 2012-NM-072-AD]**

**RIN 2120-AA64**

**Airworthiness Directives; The Boeing Company Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** We propose to adopt a new airworthiness directive (AD) for all The Boeing Company Model 727 airplanes. This proposed AD was prompted by reports of cracks on the elevator rear spar stiffener assembly. This proposed AD would require repetitive detailed inspections for cracking of the elevator rear spar stiffener assembly, and corrective actions if necessary. We are proposing this AD to detect and correct cracking of the elevator rear spar stiffener assembly, which could adversely affect elevator structural stiffness, that could lead to elevator vibration and possible interference with the tab control rod and which could result in flutter and consequent loss of control of the airplane.

**DATES:** We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P.O. Box 3707, MC 2H-65, Seattle, WA 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; Internet <https://www.myboeingfleet.com>. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Ave SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

#### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** Berhane Alazar, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: 425-917-6577; fax: 425-917-6590; email: [berhane.alazar@faa.gov](mailto:berhane.alazar@faa.gov).

## **SUPPLEMENTARY INFORMATION:**

### **Comments Invited**

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2013-0299; Directorate Identifier 2012-NM-072-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

### **Discussion**

We received reports of cracks on the elevator rear spar stiffener assembly. An operator reported finding a crack on the rear spar stiffener assembly while accomplishing Boeing Service Bulletin 727-55-0089 to address cracking of the elevator rear spar web at the elevator tab hinge fittings. A cracked elevator rear spar stiffener assembly, if not detected and corrected, could adversely affect elevator structural stiffness, which could result in elevator vibration and possible interference with the tab control rod and could lead to flutter and consequent loss of control of the airplane.

### **Relevant Service Information**

We reviewed Boeing Special Attention Service Bulletin 727-55-0094, dated March 21, 2012. For information on the procedures and compliance times, see this service information at <http://www.regulations.gov> by searching for Docket No. FAA-2013-0299.

### FAA's Determination

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

### Proposed AD Requirements

This proposed AD would require accomplishing the actions specified in the service information described previously.

The phrase "related investigative actions" might be used in this proposed AD. "Related investigative actions" are follow-on actions that: (1) are related to the primary actions, and (2) are actions that further investigate the nature of any condition found. Related investigative actions in an AD could include, for example, inspections.

In addition, the phrase "corrective actions" might be used in this proposed AD. "Corrective actions" are actions that correct or address any condition found. Corrective actions in an AD could include, for example, repairs.

### Costs of Compliance

We estimate that this proposed AD affects 98 airplanes of U.S. registry. We estimate the following costs to comply with this proposed AD:

Estimated costs				
Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspection	5 work-hours X \$85 per hour = \$425 per inspection cycle	None	\$425 per inspection cycle	\$41,650 per inspection cycle

We estimate the following costs to do any necessary replacements that would be required based on the results of the proposed inspection. We have no way of determining the number of aircraft that might need this replacement:

### On-condition costs

Action	Labor cost	Parts cost	Cost per product
Replacement	7 work-hours X \$85 per hour = \$595	Unknown	\$595

### Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

(1) Is not a "significant regulatory action" under Executive Order 12866,

(2) Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),

- (3) Will not affect intrastate aviation in Alaska, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

**List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

**The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

**PART 39 - AIRWORTHINESS DIRECTIVES**

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

**§ 39.13 [Amended]**

- 2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

**The Boeing Company:** Docket No. FAA-2013-0299; Directorate Identifier 2012-NM-072-AD.

**(a) Comments Due Date**

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to all The Boeing Company Model 727, 727C, 727-100, 727-100C, 727-200, and 727-200F series airplanes, certificated in any category.

**(d) Subject**

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 55, Stabilizers.

**(e) Unsafe Condition**

This AD was prompted by reports of cracks on the elevator rear spar stiffener assembly. We are issuing this AD to detect and correct cracking of the elevator rear spar stiffener assembly, which could adversely affect elevator structural stiffness, that could lead to elevator vibration and possible interference with the tab control rod and which could result in elevator flutter and consequent loss of control of the airplane.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Repetitive Inspections and Corrective Actions**

Except as provided by paragraph (h) of this AD, at the applicable time specified in table 1 of paragraph 1.E., “Compliance,” of Boeing Special Attention Service Bulletin 727-55-0094, dated March 21, 2012, do a detailed inspection for any cracking of the elevator rear spar stiffener assembly, and all applicable corrective actions, in accordance with the Accomplishment Instructions of Boeing Special Attention Service Bulletin 727-55-0094, dated March 21, 2012. Do all applicable corrective actions before further flight. Repeat the inspection thereafter at the applicable time specified in table 1 of paragraph 1.E., “Compliance,” of Boeing Special Attention Service Bulletin 727-55-0094, dated March 21, 2012, except as provided by paragraph (j) of this AD.

**(h) Exception**

Where Boeing Special Attention Service Bulletin 727-55-0094, dated March 21, 2012, specifies a compliance time “from the original issue date of this service bulletin,” this AD requires compliance within the specified compliance time after the effective date of this AD.

**(i) Optional Replacement**

Replacing the elevator rear spar stiffener assembly with a new assembly in accordance with Part 4 or 5, as applicable, of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 727-55-0094, dated March 21, 2012, terminates the inspections required by paragraph (g) of this AD for that assembly, except as required by paragraph (j) of this AD.

**(j) Post-Replacement Inspection Compliance Time**

For any elevator rear spar stiffener assembly replaced as required by paragraph (g) of the AD or as specified in paragraph (i) of this AD: Do the next inspection required by paragraph (g) of this AD for that assembly within 96 months after accomplishing the replacement and repeat thereafter at the times specified in paragraph (g) of this AD.

**(k) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, Seattle Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in the Related Information section of this AD. Information may be emailed to: 9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(3) An AMOC that provides an acceptable level of safety may be used for any repair required by this AD if it is approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) that has been authorized by the Manager,



Seattle ACO, to make those findings. For a repair method to be approved, the repair must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

**(I) Related Information**

(1) For more information about this AD, contact Berhane Alazar, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: 425-917-6577; fax: 425-917-6590; email: [berhane.alazar@faa.gov](mailto:berhane.alazar@faa.gov).

(2) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P.O. Box 3707, MC 2H-65, Seattle, WA 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; Internet <https://www.myboeingfleet.com>. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Ave SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Issued in Renton, Washington, on March 28, 2013.

Ali Bahrami,  
Manager,  
Transport Airplane Directorate,  
Aircraft Certification Service.

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